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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,962	01/13/2004	Young-Sook Do	8750-049	4811

7590 02/16/2005

MARGER JOHNSON & McCOLLOM, P.C.  
1030 S.W. Morrison Street  
Portland, OR 97205

EXAMINER
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HOANG, HUAN

ART UNIT	PAPER NUMBER
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2827

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/756,962

Applicant(s)

DO, YOUNG-SOOK

Examiner

Huan Hoang

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

The word "Fig.1" (page 7, line 17) should be "Fig. 3" since Fig. 1 does not include second read only memory cells 30-1.as disclosed on page 7, lines 17-18.

Appropriate correction is required.

### ***Double Patenting***

2. Claim 6 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-13 are rejected under 35 U.S.C. 102(a) as being anticipated by admitted prior art.

The admitted prior art (Fig. 1) shows all the elements as recited in claims 1-13 as follows:

a read only memory cell array (10-1) including:

a plurality of first read only memory cells coupled to a plurality of word lines (WL2-WLm);

a plurality of first bit lines (BL1-BLn), and a plurality of first ground lines (VGL1-VGL(n+1)); and

a plurality of second read only memory cells coupled to a reference word line (WL1),

a plurality of second bit lines (BL1-BLn) and a plurality of second virtual ground lines (VGL1-VGL(n+1));

a reference memory cell array (10-2) including:

a plurality of first reference memory cells (memory cells connected to WL2-WLm in array 10-2) coupled to a plurality of dummy word lines (WL2-WLm), at least one reference bit line (RBL1), and at least one reference virtual ground line (RVGL1); and

at least one second reference memory cell (memory cells coupled to WL1 in array 10-2); the at least one reference bit line (RBL1) and the at least one reference virtual ground line (RVGL1); and

a dummy memory cell array (10-3) including:

a plurality of first dummy memory cells (memory cells coupled to WL2-WLm in array 10-3) coupled to the plurality of dummy word lines (WL2-WLm), at least

one dummy bit line (DBL), and at least one dummy virtual ground line (DVGL);  
and  
a plurality of second dummy memory cells (memory cells coupled to WL1 in array 10-3) coupled to the reference word line (WL1), the at least one dummy bit line (DBL), and the at least one dummy virtual ground line (DVGL);  
where the plurality of dummy word lines is coupled to the plurality of word lines (WL2-WLm);  
where the plurality of second bit lines is coupled to the plurality of first bit lines (BL1-BLn); and  
where the plurality of second virtual ground lines is coupled to the plurality of first virtual ground lines (VGL1-VGL9n+1)).

The reference cells in the reference array 10-2 are connected to the word line WL1; therefore, WL1 is considered the reference word line. Also, the dummy cells in the dummy memory cell array 10-3 are connected to WL2-WLm; therefore, WL2-WLm are considered the dummy word lines.

The reference word line WL1 is selected responsive to the plurality of word lines (address signals XA1-k).

The plurality of dummy word lines coupled to a power voltage (when selected) or ground (when deselected) is inherent.

Regarding claim 12, since the row decoder selecting the reference word line WL1, it is considered the reference word line selecting circuit.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kohno discloses a mask ROM semiconductor memory device capable of synchronizing the activation of the sense amplifier and of the word line.

Hotta discloses a semiconductor memory device with shared sense amplifiers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan Hoang whose telephone number is (571) 272-1779. The examiner can normally be reached on Mon-Fri 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on (571) 272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

**Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

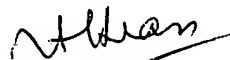
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Huan Hoang  
Primary Examiner  
Art Unit 2827

HH  
2/13/05.